



First Response

Serial No. 09/752,699

Page 4

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JAN 10 2003
TC 1700

REMARKS

Claim 1 is amended to conform with US practice, and to include features formerly in Claims 3 and 5 as well as on page 2, lines 15-20 and page 3, lines 1-6. Claims 2 and 6 are amended to remove multiple ranges of values, thereby overcoming the rejection of those claims as indefinite. The final paragraph of the specification is amended to remove inappropriate references to the claims. Claims 1, 2, 4 and 6-17 remain, with no claim previously allowed.

Claims 1-17 stand rejected as unpatentable over *Riedel* (5,631,073), taken alone or in view of *Knoke* (4,490,425). The applicant respectfully traverses those rejections.

The underlying object of the present invention is to devise a textile adhesive tape that can be unwound easily, ready for use without special covering or treatment of the adhesive coating, and that does not require an expensive method of production. That object is neither contemplated nor met by the cited art.

One of the underlying objects of *Riedel* is to devise a textile adhesive tape having essentially non-fracturable fibers that can be made readily tearable in the cross-web direction of the tape, and yet is conformable in use. Such a tape can also exhibit a number of other advantageous properties (column 11, lines 9-15). Those advantageous properties, however, do not include the absence of special covering or treatment of the adhesive coating, preventing unduly strong adhesion with the following layer during winding of the tape. To the contrary, the adhesive-coated tapes of *Riedel* utilize a releasable liner that covers the adhesive layer, or a release coating such as a low adhesion backsize (LAB), coated on the non-adhesive side of the tape, to facilitate the winding of the tape into easy-to-use rolls. (Column 10, lines 46-50 of *Riedel*.) *preferably*

The object of *Knoke* is to develop a non-woven interlining fabric which is particularly suitable for use with soft outer textile material, which does not interfere with the properties of the outer material, and which drapes well. To achieve this object, *Knoke* discloses a soft, fluffy, bulky, non-woven fabric made from bonded or at least partially-fused fibers which have been needle-punched. *Knoke* does not disclose an adhesive tape, but does mention applying a thermal adhesive to one side of the fabric.

*NO
COMPARISONS
maybe* Neither *Riedel* nor *Knoke* disclose a tape that can be wound on itself and unwound easily, ready for use without special covering or treatment of the adhesive coating, and that does not have an expensive method of production. For the tape disclosed by *Riedel*, the use of an interliner or a LAB is required. The fabric of *Knoke* is not wound at all, if it is provided with an adhesive layer. Indeed, the fluffy surface of the fabric would adhere on the adhesive layer, if the fabric were wound onto itself. Therefore, a person with ordinary skill in the art does not have any teaching from *Riedel* or *Knoke* how to achieve the object of the present invention and, indeed, that person would understand that an attempt to wind a *Knoke*-type fabric onto itself would not produce a workable result.

Further, and with regard to the adhesive tape defined in amended Claim 1, neither *Riedel* nor *Knoke* mention the softening point of the fiber materials at all. Those documents describe two types of fibers which, for example, are called "tensitized non-fracturable staple fibers" and "binder fibers". However, those fibers are not "such fibers as applicants contemplate" (Office Action, page 3, lines 15-16). On the one hand, this can be clearly seen from the characterization of the fibers only by means of mechanical properties and properties of treatment, and on the other hand from the examples which are mentioned for both types of fibers in the references. Contrary to the present invention, production of the "tensitized non-fracturable staple fibers" requires a special treatment of the fibers, namely, they must be drawn during manufacture, such that the polymer chains substantially orient in the machine direction or web direction of the fiber. Further, contrary to the present

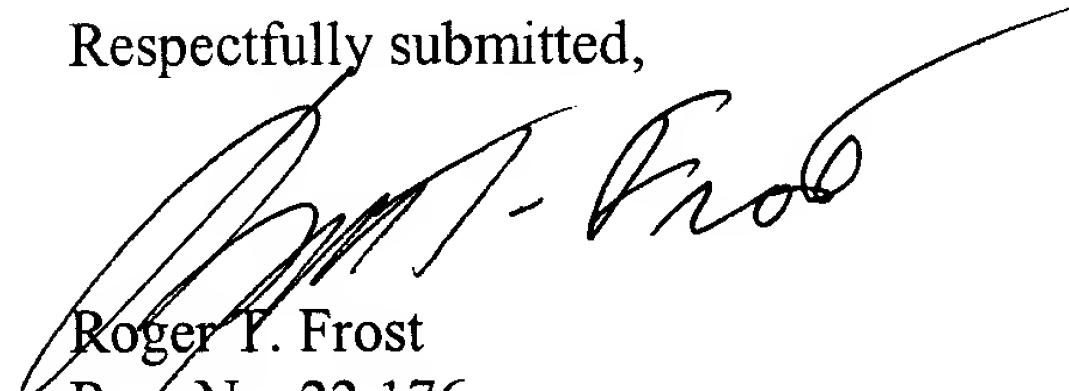
invention, according to *Riedel*, for both the “non-fracturable staple fibers” and the “binder fibers”, polyolefins are mentioned as examples (See column 4, line 43 – column 6, line 8). The temperature of the pattern roll during thermal bonding according to *Riedel* is maintained at about 120° to 180°C, preferably at 125° to 145°C (column 7, lines 28-31). For the fiber materials and technological treatment parameters described in *Riedel*, the additional use of chemical binding agents is indispensable (Claim 1; column 3, lines 59-64). For all these reasons, the method of production required for the materials and tapes of *Riedel* is very expensive.

Amended Claim 1 defines an adhesive tape comprising structural and functional elements, as well as an overall structural and functional combination of elements, that is neither disclosed by *Riedel* nor taught to one of ordinary skill by that reference. The contributions for which the secondary reference *Knoke* is cited do not make up those deficiencies of *Riedel*. Furthermore, one of ordinary skill would be led away from any combining of *Knoke* to produce a windable adhesive tape, for the reason mentioned above. Accordingly, the subject matter of amended Claim 1, and of the dependent claims, would not have been obvious in view of *Riedel*, with or without the secondary reference *Knoke*.

First Response
Serial No. 09/752,699
Page 7

The foregoing is submitted as a complete response to the Office action identified above. This application should now be in condition for allowance, and the applicant solicits a notice to that effect.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

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The final paragraph on page 3 should read as follows:

-- The invention is not restricted to the depicted and described practical example, but it also embraces all variants that are equivalent according to the invention. [Moreover, the invention is also not restricted to the feature combination defined in Claim 1, but can also be defined by any other combination of specific features of all the disclosed individual features overall.] This means that in principle almost any individual feature of [Claim 1] the claims can be omitted and replaced by at least one individual feature disclosed elsewhere in the application. [In this respect Claim 1 is to be understood merely as a first attempt at wording for the invention.] --

In the Claims:

The following claims are amended to read as follows:

1. (Amended) Adhesive tape [consisting of] which is free from chemical binding agents and can be wound onto itself without use of a special covering or treatment and unwound easily ready for use, comprising:

a tape-like textile support (1) [and an adhesive coating (2) applied to the tape-like textile support (1), characterized by the fact that the tape-like support (1) consists]

consisting at least partially of a needle punched nonwoven which is fabricated of at least a first fiber material and a second fiber material both produced from at least partially thermoplastic fibers[,] ;

in which [the] said thermoplastic fibers are at least partially bonded to each other on the side opposite the adhesive coating by melting [on the side opposite the adhesive coating (2)] at a certain temperature,

and a pressure sensitive adhesive coating (2) applied to the tape-like textile support (1);

said at least two fiber materials having different melting points,

whereby the melting point of said first fiber material is not less than 150°C and lower than said temperature of melting;

and the melting point of said second fiber material is higher than 200°C and higher than said temperature of melting,

so that said needle punched non-woven comprises at least selectively melted fibers of said first fiber material and unmelted fibers of said second fiber material.

2. (Amended) Adhesive tape according to Claim 1, characterized by the fact that the tape-like [textile] support (1) is compacted at least on one side[, especially by thermal calendaring].

6. (Twice Amended) Adhesive tape according to Claim 1, characterized by the fact that the tape-like [textile support] (1) has a basis weight of 20 to 200 g/m²[, especially 50 g/m² or 100 g/m²].

Claims 3 and 5 are canceled without prejudice.